

1/11/08



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,817	02/24/2004	Yong Chcol Park	46500-000120/US	1150
30593 7590 08/24/2007 HARNES, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EXAMINER ALUNKAL, THOMAS D	
			ART UNIT 2627	PAPER NUMBER
			MAIL DATE 08/24/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/784,817

Applicant(s)

PARK ET AL.

Examiner

Thomas D. Alunkal

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/18/07 has been entered.

***Response to Arguments***

Applicant's arguments, filed 6/18, with respect to the rejection(s) of claim(s) 25-42 under 35 U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (hereafter Ito)(US 6,160,778).

Regarding claim 25, Ito discloses a recording medium having a data structure for managing a data area of the recording medium (Abstract), comprising: a management area storing a data block (Figure 2, Elements 4b and 10), a first information including recordation status indicating recorded areas and non-recorded areas of the data area (Figure 2, Element 6b), the data block having a second information including a first pointer pointing to an address where the first information is recorded (Figure 2, Element 10, disk definition structure), and wherein the data block includes a plurality of sectors (Figure 2, Elements 11-12 and 20-22). Ito does not disclose where the first information is positioned within the data block.

However, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the volume structure (Figure 2, Element 6b) of Ito to the data block (Figure 2, Element 10), motivation being to increase the volume of the user data area in logical volume space.

Furthermore, Ito does not disclose wherein the second information is recorded in a last sector of the data block. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the disc definition structure of Ito to the last sector of the data block (Figure 2, Element 10), since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. Namely, the DDS provides the same function regardless of its position in the data block.

Regarding claim 26, Ito discloses wherein the first information indicates recordation status of the data area on a recording unit by recording unit basis (Column 9, line 64-Column 10, line 5).

Regarding claim 27, Ito discloses wherein the data block includes at least one recording unit (Figure 2, Element 10 which contains multiple recording units).

Regarding claim 28, Ito discloses wherein the second information includes a second pointer pointing to an address where a defect list is recorded (Figure 2, Element 11, disk definition structure which points to the SDL).

Regarding claim 29, Ito discloses wherein the address is a first physical sector number of a location where the first information is recorded (Column 2, lines 46-51. Specifically, addresses are recorded on a sector-by-sector basis).

Regarding claim 30, Ito discloses wherein the first and second pointers identify most current versions of the first information and the defect list, respectively, as of when the second information is recorded (Column 19, lines 21-26).

Regarding claim 31, Ito discloses a method of recording management data on a recording medium (see Title), comprising: recording a data block in a management area (Figure 7, Element 720 and Figure 2, Elements 4b and 10), a first information including recordation status indicating recorded areas and non-recorded areas of the data area (Figure 2, Element 6b), the data block having a second information including a first pointer pointing to an address where the first information is recorded (Figure 2, Element 10, disk definition structure), and wherein the data block includes a plurality of sectors

(Figure 2, Elements 11-12 and 20-22). Ito does not disclose where the first information is positioned within the data block.

However, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the volume structure (Figure 2, Element 6b) of Ito to the data block (Figure 2, Element 10), motivation being to increase the volume of the user data area in logical volume space.

Furthermore, Ito does not disclose wherein the second information is recorded in a last sector of the data block. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the disc definition structure of Ito to the last sector of the data block (Figure 2, Element 10), since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. Namely, the DDS provides the same function regardless of its position in the data block.

Regarding claim 32, Ito discloses wherein the second information includes a second pointer pointing to an address where a defect list is recorded (Figure 2, Element 11, disk definition structure which points to the SDL).

Regarding claim 33, Ito discloses wherein the first and second pointers identify most current versions of the first information and the defect list, respectively, as of when the second information is recorded (Column 19, lines 21-26).

Regarding claim 34, Ito discloses a method of reproducing data from a recording medium (see Title), comprising: reproducing at least a portion of data recorded on the recording medium based on a data block recorded in a management area of the

recording medium (Figure 7, Element 720), a first information including recordation status indicating recorded areas and non-recorded areas of the data area (Figure 2, Element 6b), the data block having a second information including a first pointer pointing to an address where the first information is recorded (Figure 2, Element 10, disk definition structure), and wherein the data block includes a plurality of sectors (Figure 2, Elements 11-12 and 20-22). Ito does not disclose where the first information is positioned within the data block.

However, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the volume structure (Figure 2, Element 6b) of Ito to the data block (Figure 2, Element 10), motivation being to increase the volume of the user data area in logical volume space.

Furthermore, Ito does not disclose wherein the second information is recorded in a last sector of the data block. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the disc definition structure of Ito to the last sector of the data block (Figure 2, Element 10), since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. Namely, the DDS provides the same function regardless of its position in the data block.

Regarding claim 35, Ito discloses wherein the second information includes a second pointer pointing to an address where a defect list is recorded (Figure 2, Element 11, disk definition structure which points to the SDL).

Regarding claim 36, Ito discloses wherein the first and second pointers identify most current versions of the first information and the defect list, respectively, as of when the second information is recorded (Column 19, lines 21-26).

Regarding claim 37, Ito discloses wherein the management area includes space to record a subsequent data block having the first information different from the first information in the data block (Figure 5, Element 22. Specifically, there is sector space for updated information in the data block).

Regarding claim 38, Ito discloses wherein the first information in the subsequent data block reflects changes in the recordation status since the data block was recorded (Column 19, lines 21-26).

Regarding claim 39 and 40, these claims recite limitations similar to those in claims 37 and 38, respectively, and are rejected over the same grounds.

Regarding claim 41, Ito discloses wherein the management area includes more than one of the data blocks and the reproducing step reproduces based on a most recently recorded one of the data blocks (Column 19, lines 21-26).

Regarding claim 42, Ito discloses wherein the most recently recorded one of the data blocks includes a most current version of the first and second information (Column 19, lines 21-26).

Regarding claims 43-45, Ito does not disclose wherein the second information is recorded in a last sector of the data block. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the disc definition structure of Ito to the last sector of the data block (Figure 2, Element 10),



since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. Namely, the DDS provides the same function regardless of its position in the data block.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gotoh et al. (US 6,581,167) disclose an information recording medium, information recording method, and information recording/reproduction system. Takahashi (US 5,914,928) discloses an information recording disk having a replacement area. Ueda et al (US PgPub 2001/0026511) disclose an information recording medium.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Alunkal whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas Alunkal/  
Examiner AU 2627

WAYNE YOUNG  
SUPERVISORY PATENT EXAMINER